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THE BEGINNINGS OF THE WINE INDUSTRY
IN THE HUNTER VALLEY

Introduction

The Hunter Valley has been a wine producing region since the earliest years of its settlement. At first the quantities of wine produced and the vine acreages were negligible, and even by 1850, the terminal date for this essay, these had not made the dramatic increases that were to occur in the second half of the nineteenth century. But, during these years the pioneer wine growers, in the main large landholders with a few acres of vines, were laying the foundations for the future.

This essay is an attempt to do two things. First, in view of the generally sketchy and partly inaccurate writings on the early years, it is designed to tell, as accurately as possible, what actually happened, within the limitations imposed by length. At the same time it seeks to analyse the reasons for the growth of the industry to a stage where, by midcentury, it had become strong enough to survive the gold rush years since many of the prerequisites for success had become established.

The important early years of the Hunter wine industry's growth are best seen in the context of colonial vine growing as a whole. Thus the next section, while not seeking to be a history of the wine industry in New South Wales to 1830, gives the background for the activities of Hunter Valley settlers in the 1830's and after. Successive sections examine the wine industry in the Valley in the 1830's, to 1847, and the years 1847-50 in which the Hunter River Vineyard Association became dominant.

While any cut off date is an arbitrary choice, 1850 is
convenient in several ways. It antedates the gold rushes and the achievement of responsible government, both of which profoundly affected the colony. More importantly, it enables a discussion of the gains achieved between 1847 and 1850 which were so important to the industry and which would have been omitted had, say, 1847 been chosen as a terminal date. It has, therefore, a convenience rather greater than the fact that it represents midcentury.

The Background

The first settlers came to the Hunter Valley in about 1813, and by 1820 there were twenty one farms on Paterson's and Wallis's plains, all but three of which were held by convicts.¹ More important for the purposes of this essay is the arrival in the 1820's of landholders of greater substance, with large grants, following the orders given to Henry Dangar for a survey of the Valley. As T. M. Perry points out, the most sought for locations for land grants were the alluvial river flats, and by 1825 the bulk of these on the Hunter, Paterson and Williams rivers, and much of the flanking areas, had been chosen and, in many cases, occupied.

The Valley attracted agriculturalists as well as graziers and, as the 1828 census revealed, almost forty three per cent of the non convict adult males were free immigrants. They were, on the whole, men of some position in society with enough capital to ensure large land grants. In 1828, ninety one holdings (or 47.7%) of 191 occupied properties were larger than 1,000 acres.² By 1829 the Hunter Valley, though the last of the settled districts to be opened, was the most populous and intensively used. Its settlers were 'new immigrants, whose enterprise, coupled with the natural resources of the valley, produced a rapid development of both agriculture and stock raising..."³
It seems, on the face of it, unlikely that immigrants from the British Isles should consider producing commercially a commodity which their countrymen had no experience in making and, in general, little interest in drinking. Unlike the European peoples, the British were not primarily wine drinkers, certainly not enthusiasts for the unfortified wines for which the Hunter Valley has become famous. This, however, is only part of the story. The wealthier classes of England and Scotland were by no means unacquainted with the practice of drinking table wine, whatever the tastes of the rest of the community. Moreover, the settlers were, in general, men with a shrewd eye for the main chance. Their aims, in the early days, were to experiment with as many varieties of grazing and farming as they could. So, in addition to their sheep and cattle, their wheat, rye, and other crops and vegetables, they usually planted an orchard. Some went further and devoted up to an acre to grape vines, in addition to the other fruits planted. The future of any of these experiments would lie in how well they were suited to the climate of the Valley, and the extent of potential markets.

There is no indication of who actually planted the first vines in the Hunter Valley. The first official returns did not appear until 1843 and listed only acreages and production figures by counties. However, a list of vines planted in the colony by 1832 appears in manuscript notes on the flyleaves of a copy of James Busby's A Manual of plain directions for planting and cultivating vineyards and for making wine in New South Wales. At this stage there were ten settlers on the Hunter River growing vines. William Ogilvie at Merton and James P. Webber at Tocal had three acres each; George Wyndham at Dalwood and Townshend at Trevallyn had two acres; William Kelman at Kirkton, Colonel Henry Dumaresque at St Heliers, J. Pike at Pickering, Pilcher at Maitland and Little at Invermien, one acre;
Alexander Warren, near Wighton, half an acre. The total was, of course, small but already two of the vineyards that were to achieve outstanding reputations in later years, Dalwood and Kirkton, had been planted.

To some extent the settlers in the Hunter region profited by the relatively late development of settlement in the district. By 1832 it was already apparent that the vine could thrive. Elsewhere in the colony several men, the most important of whom were Gregory Blaxland, William Macarthur, James Macarthur, and James Busby, had made important contributions to the subsequent growth of a colonial wine industry. On their efforts, whether practical experience or printed dissemination of knowledge, later growers could build.

The pioneer of Australian viticulture was undoubtedly Gregory Blaxland, the first settler to make a significant contribution to the growth of the vine. On his arrival in the colony he had purchased from D'Arcy Wentworth the 450 acre Brush Farm, near the present Eastwood, and had planted there some vines which he brought from the Cape of Good Hope on his voyage to Australia. He experienced considerable trouble with vine disease, especially from a blight which destroyed the leaves and young shoots. Accordingly he experimented with as many varieties of vine as possible to find which ones would be most resistant to this blight, which was probably the disease called 'black spot' or 'anthracnose'. He achieved some success with what he called the Claret grape and his vineyard, laid out between 1816 and 1818, was based largely on this grape.

In response to the offer of a medal by the Society for the Encouragement of Arts, Manufacturers and Commerce, usually known as the Royal Society of Arts, or simply, Society of Arts, for marketable wine made in New South Wales in quan-
ties of not less than twenty gallons, Blaxland shipped to London in 1822 a quarter pipe of red wine, fortified with brandy to help it travel satisfactorily. The Society awarded him its Silver Medal in 1823; in 1828 he was given the Society's Gold Medal for a further two samples which, in the Society's opinion, were decidedly better than the 1823 samples and 'wholly free from the earthy flavour which unhappily characterizes most of the Cape wines'. While in England he forwarded two copies of a work published in New South Wales on vine culture, to be placed in the Society's library.

Blaxland also practised fortification of his wines with brandy to improve and stabilize inferior quality wines. He was, however, unhappy with the heavy duty imposed on brandy, and petitioned the Governor for its removal. In a dispatch in 1825 Earl Bathurst agreed to the remission of duty on brandy used in the manufacture of wine for export, provided that proof was given of the actual export of the wine. This was a small step in the encouragement of wine making; however, in its assumption that wine sent overseas needed fortification to travel successfully and remain sound, it is questionable whether it was a step in the right direction, since in later years brandied wines were to harm considerably the reputation of Australian wines in England.

Little more was done by Blaxland in promoting vine cultivation. He disappeared from public life in the 1830's and his name does not appear again in connexion with wine making. Nevertheless, his achievements were considerable. He had shown that sound, drinkable wine could be made in New South Wales, and had experimented until suitable blight resistant vines had been found. His overseas exertions had drawn English attention to the possibilities of a colonial wine industry, and could not fail to act as an encouragement to
settlers to experiment with a product which, properly made, was less perishable than many other agricultural products and more suitable for export.

The second important pioneer of vine growing was William Macarthur, son of the 'Botany Bay Perturbator', John Macarthur, whose enforced exile may have been irksome to him though it was of considerable use to the colonial wine industry. While he was overseas, his sons, James and William, took the opportunity of observing at first hand the wine industry on the Continent. On their return to the colony they planted their first vineyard at Camden in 1820. Despite their overseas observations they still had to adapt their knowledge to local conditions and, after many experiments, they abandoned the old vineyard, chose the best of the vine varieties at their disposal and transferred to a new site.

On alluvial soil and naturally terraced land near the Nepean River they planted twenty two acres after trenching. This was the first full scale effort to produce wine in commercial quantities, and indicates the confidence the Macarthurs had in the future of wine. Ten years later, in the 1830's, they commenced another vineyard on a totally different site and soil.

Perhaps the chief importance of William Macarthur as a pioneer vigneron was his efforts to popularize the growth of the vine. He realized the necessity for acquiring and transmitting local knowledge, since colonial soil and climate differed so markedly from those of the Continental wine producing areas. The experience he gained from his own exertions he put into a series of articles, written under the penname 'Marto' and published in the Australian in November 1842. These were reprinted in expanded form in 1844. He sent wine overseas at various times and won several awards. He was instrumental
in procuring German vine dressers to provide skilled labour for his vineyards, and also in founding the New South Wales Vineyard Association in the 1850's. So powerful were his exertions on behalf of the wine industry, and his own part in it, that even as late as 1932 the fiction persisted that as important a figure as James Busby was merely Macarthur's manager or agent. The success of his Camden vineyards and the practical advice contained in his articles were undoubtedly of value to aspiring vignerons.

The third, and probably the best known, of the pioneers of the wine industry in the 1820's was James Busby. Most books on wine characterize him as the father of Australian viticulture, and, less accurately, as the founder of the Hunter wine industry. Perhaps the most suitable epithet is Eric Ramsden's term, 'Prophet', since his activities were less those of a wine maker than of a teacher and advocate of viticulture. While not the founder of the Hunter wine industry, his connexions with the Valley via the family property at Kirkton near Branxton, managed for years by his brother-in-law, William Kelman, make him of special interest to those interested in the Hunter Valley wine industry. Accordingly, he deserves somewhat fuller treatment in this study than either Macarthur or Blaxland.

The general outline of his life is quite well known. Born in Edinburgh in 1801, he came to Australia on the Triton, arriving in 1824 with his father, John Busby, who secured appointment as engineer and mineral surveyor, and with other members of the family. Part of his childhood was spent in agriculture. Before embarking for the colony he spent some months in France acquainting himself with methods of vine culture and wine making. On arrival in Australia he was engaged by the trustees of the Male Orphan School at Bull's
Hill, near Liverpool, to take charge of the 12,300 acre estate, to organize thereon an Agricultural Institute, and more particularly to teach the boys viticulture and raise other products previously neglected by agriculturalists in the colony.

The position lasted for two years only and Busby lost his position when the new Church and School Lands Corporation closed down the farm in March 1826. The Corporation kept on the vineyard, however, and Richard Sadleir, Busby's successor, made a sound Burgundy style wine four years after the original plantings in 1825. There is no evidence that Busby himself made wine, either at Bull's Hill or at his Hunter property, Kirkton. Indeed, he was too busy with his public affairs and the wrangling that developed over his treatment in the colony. He served for a time as Collector of Internal Revenue and as a member of the Land Board but, failing to gain any satisfaction from the Government, he left for England in 1831 to present his case to Viscount Goderich, the Secretary of State. He was eventually rewarded with the post of British Resident in New Zealand, but failed to gain much material reward from his exertions on behalf of the Government and of the wine industry.

The latter was the chief beneficiary of his visit to England. Late in 1831 Busby undertook a four months' tour of wine producing areas in Spain and France. His object was to ascertain to what peculiarities of climate, soil, or culture the most celebrated Wine Provinces are indebted for the excellence of their respective products, and to make a collection of the different varieties of vines cultivated in each. After observing cultivation of the vine, raisins and olives in parts of Spain, he visited the wine areas of France and eventually collected 678 varieties of vine. Most of these,
433 in all, came from the Botanic Gardens at Montpellier, but 110 were gathered from the Luxemburg Gardens, forty four from Sion House, near Kew in England, and ninety one from various parts of France and Spain. In a magnanimous gesture he donated the whole collection to His Majesty's Government for the purpose of forming an Experimental Garden in Sydney to test their different qualities and propagate the most suitable for general distribution. He was well aware of the importance of different climatic factors.

It is perhaps the most remarkable fact connected with the culture of the vine that even a slight change of climate or soil produces a most material change in the qualities of its produce, and for this reason the best varieties of France and Spain may prove (as several of them have already proved) of no value in N.S. Wales while on the other hand the most indifferent kinds may produce in that climate the most valuable wines.

The vines were transmitted to Australia at Government expense, arriving safely in 1832. In August, Governor Bourke informed Under Secretary Hay that the collection had been planted in the Botanic Gardens, where, unfortunately, they were later to be neglected and a valuable opportunity was lost. Fortunately for Australian viticulture 365 duplicates were planted at Kirkton where, though Busby sailed for New Zealand in April 1833, they were well cared for by William Kelman who shared his brother-in-law's interest in viticulture. Thus Busby's labours were not entirely in vain, as cuttings from Kirkton were used extensively in other vineyards, and Kirkton itself was to become one of the colony's most celebrated vineyards under the management of the Kelman family.

Important as this practical aid to wine making was, probably Busby's most enduring work was his series of writings on various matters connected with the vine. His first work, A
Treatise on the culture of the vine and the art of making wine, was published in Sydney in 1825. It consists of a short introduction and translations from Chaptal and other French authorities. Though a considerable enterprise for the twenty four year old Busby, it was an ill conceived project given the state of the industry in New South Wales. As an anonymous reviewer in 1833 remarks, it 'fell dead from the press. And no wonder'. The reviewer goes on to castigate the youthful author for his arrogance in foisting his inexperienced observations on a country he knew little about: some of the book was written on his journey to the colony.

The other reasons given for the poor reception accorded the Treatise are interesting: The Colonists were at that time wholly unprepared for such a work. Few persons had thought of the vine as anything better than an ornament to their gardens, or an addition to the dessert of their private tables. The idea of its becoming a valuable mercantile staple had never entered their heads. When, therefore, Mr Busby - a stranger just arrived upon their shores - suddenly announced the publication of a large, learned, and weighty expensive book upon the subject, it was not surprising that he should meet with a cool and suspicious reception... The few who took the trouble to examine it, found in it nothing to reward that trouble. A dry and elaborate compilation, from French treatises, was... like putting a sum in compound interest before a child who had never learnt the multiplication table. Instead of a concise, simple and elementary essay on the adaptation of the soil and climate to the production of good wine and raisins, and on the profits derivable to the pockets of the vine-grower; together with a few plain directions for going about this novel sort of tillage... Mr Busby offered them a scientific disquisition on all the mysteries of the manufacture of European wines! He might as well have treated of the manufacture of lace and muslin.

Of course, the reviewer was right. But Busby learnt from his mistakes and, in his second publication, provided the 'concise, simple, and elementary essay' which the reviewer
claimed the people would have bought, read, understood, and acted upon. Entitled A Manual of plain directions for planting and cultivating vineyards and for making wine in New South Wales, this short manual, ninety six pages against the Treatise's 270, published in Sydney in 1830, achieved the success denied to the Treatise. Where the latter had been intended for the upper classes, the Manual was addressed to the smaller settlers: 24

To convince them that they ... may, with little trouble and scarcely any expense, enjoy their daily bottle of wine ..., not of that strong brandied wine which is prepared to stimulate the palate, and warm the stomachs, of the spirit drinking inhabitants of cold and wet climates ... but of that more natural and more wholesome wine which is prepared from the pure juice of the grape.

The Sydney newspapers received the book favourably when it appeared in 1830, and the reviewer in the New South Wales Magazine in 1833 was as generous to the Manual as he had been critical of the Treatise, strongly recommending it to newly arrived immigrants as a 'cheap and intelligible guide on a subject to which they ought to give a share of attention.' 25

In fact, after briefly reviewing the efforts of William Macarthur, Sir John Jamison, James P. Webber and Thomas Shepherd he connects them, more or less, with the publication of the Manual, and claims: 26

We shall not be charged with exaggeration when we affirm that within the three years that have elapsed since the publication of the 'Manual', more has been done in the culture of the vine than had been before effected from the foundation of the Colony. Herein Mr Busby has conferred a substantial benefit upon our country.

Within the next three years, Busby published three more works. Two of these were general discussions of conditions in New South Wales and were designed to give advice to aspiring emigrants on various matters concerning farming and grazing in the colony. In 1833 he published an account of
his overseas journeys in Spain and France, which is of great interest to ampelographers since it contains a catalogue of the vines collected in the various areas visited. Great confusion still exists about the correct names of vines in use today and, though some writers have regarded the Journal as his crowning work, together with his collection of vines, it is probable that, of his writings, the Manual was the most significant in its stimulation of interest in, and knowledge of, wine making.

Busby left for New Zealand in 1833 and his direct influence on the development of the wine industry in the colony ceased, though his legacy of vine varieties, of course, remained. He retained an interest in wine in New Zealand, planting a vineyard at Waitangi, and also in the fortunes of his family's wine growing activities at Kirkton though, as will be seen, he had no great hopes for Kelman as a successful vigneron. He felt in later years that a good deal of the credit for the success of the wine industry had been removed from his efforts, though since his death in 1871 he has received the recognition due to him. His enthusiasm and ardent propaganda, his publications and collection of vines were of great importance to the infant industry. What he, Blaxland and Macarthur did showed the way for the many others who, in the 1830's and later, decided to try vine growing either as a supplement to their income or, in some cases, as the mainstay of their economic interests.

There were others whose efforts in the period to 1832 were significant; Sir John Jamison, for instance, had a terraced vineyard on the Nepean at Regentville, 'a very beautiful vineyard ... laid out by Meyer, the Rhenish vigneron'. This is an interesting example of the early use of skilled Europeans. Jamison was one of the members of the Committee
set up by the Governor to report on the state of Busby's vines in the Botanic Garden; at that stage, 1833-34, they were doing well. His 'Rhenish vigneron' F. A. Meyer, in 1833 was offering his services to any cultivator 'for winter pruning on moderate charges' and recommending the culture of the vine as a profitable pastime, especially if the Black Hamburgh, Oporto, white Gouais, Tinta, and Madeira grapes were used. 29

In addition, John Eyre Manning, the Registrar of the Supreme Court, commenced a terraced vineyard at Rushcutters Bay in 1833. However, possibly the most important of these early growers was Thomas Shepherd of the Darling Nursery, another member of the Committee mentioned above. On his death in 1835, the Sydney Herald, after mentioning his letters to the Sydney press on the growth of the vine, remarked that: 30

To Mr Shepherd is chiefly to be ascribed the extended cultivation of the vine in this colony; which has also been greatly promoted by the zeal of Mr James Busby ... of whose exertions Mr Shepherd was a warm admirer.

It is difficult to assess whether this is extravagant praise or plain justice. What is certain is that, with Busby, Shepherd was the first to disseminate his ideas and experience in print, a valuable help in a period when aspiring wine makers had no personal experience of the industry abroad and no substantial local tradition or body of knowledge upon which they could draw. It is possible that Shepherd's contributions to the wine industry, like Blaxland's, have been unjustly neglected in favour of the work of Busby and Macarthur.

All the evidence suggests that by 1833 considerable public interest had been aroused in the culture of the vine. In March 1832 the Sydney Herald stated that during the last year 'probably ten times as many vines were planted, as had been planted in any previous year', and expressed the wish that 'the day is not distant when we shall make our own vinous
potations for home use and foreign consumption'. In June of the same year the Herald remarked that considerable attention was now being paid to the culture of the vine, a matter made more pressing by the fact that 109,000 gallons of wine had been imported from the Cape in six months.

Every gallon of which might have been manufactured in this country at small trouble and expense, had the attention of our agriculturists been directed to the subject... Every variety of vine was procurable and every one planted would be 'a lasting treasure to the Colony'.

Similar sentiments were expressed in September 1832 by a correspondent who added the suggestion that a company be formed to encourage cultivation of the vine and the production of wine and spirits.

The annotated copy of Busby's Manual in the Mitchell Library mentions that in 1833 much vine husbandry was proceeding in the colony. The anonymous reviewer in the New South Wales Magazine, alluded to earlier, wrote that after the publication of the Manual the vine became a topic of general discourse both in town and in country, and thousands of cuttings were being currently planted. Busby himself claimed in 1831 that he had distributed upwards of 20,000 vine cuttings among from forty to fifty individuals and that the newspapers had since taken up the subject. He dated the general plantation of vineyards to the appearance of his Manual.

It is clear, then, that by the early 1830's the pioneering efforts were starting to succeed. Interest was growing in the cultivation of the vine, and the colonial press was both reflecting and encouraging that interest. More practically, increasing numbers of individuals were putting time and money into attempts to grow vines and make wines. A climate was gradually being created in which the infant industry could thrive.
The Early Years in the Valley

In 1832 there were, as we have seen, some ten growers in the Hunter Valley producing a grand total of 15½ acres. But 'vine culture [was] going on with spirit at Hunter's River', according to Busby, probably in 1833, and several people of the greatest importance to the future growth of the wine industry, such as Kelman, George Wyndham, and James King of Irrawang, were planting or about to plant vines. So great was the interest to be in wine making that when the first returns for vineyards were made in 1844, for the year 1843, the Hunter had 262½ acres of a N.S.W. total of 508. The 262½ acres produced in that year 16,472 gallons of wine and 140 gallons of brandy. By 1850 this had grown to over 500 acres. The Maitland Mercury estimated that in that year there were thirty two vinegrowers, with plantings of from half to twenty four acres, in the Maitland Police District alone. It is not suggested that all these people were earning their living by vine growing, but there was obviously a great number of people dabbling more or less seriously in this enterprise. It is impossible to list all the growers of grapes for wine purposes, but a general survey reveals that in the years 1832-50 many considerable vineyards flourished which deserve at least some mention.

At Port Stephens, the Australian Agricultural Company had commenced a vineyard in accordance with the sixteenth of its original proposals for the formation of the company:

To promote (subordinate to the raising of fine wool) the cultivation of the olive, vine, and such products as may appear best adapted to the climate and soil; and with this view to send from France, Italy or Germany, some families skilled in the management of olive grounds and vineyards.

This was not a long lived enterprise though it was flourishing in 1849. In the same district, Lieutenant William Caswell
founded a vineyard at Tannilba, supposedly around 1830, which was capable of producing 1,000 gallons of wine. Probably it was about two and a half to three acres in extent. The vineyard does not appear to have survived Caswell's departure.

On the Williams River three major and a number of minor vineyards were planted. Near Raymond Terrace, James King, one of the most significant names in nineteenth century viticulture, planted his Irrawang vineyard in 1832, making his first wine in 1836. His career and importance will be dealt with more fully below. Near Irrawang was the Glenview vineyard of William Burnett and further north at Seaham the Porphyry vineyard owned by the Rev. Henry Carmichael, assistant surveyor in the Hunter district and a pioneer educationist as well as vigneron. Porphyry was to be the longest lived of the Williams vineyards, surviving until the early 1900's. Of the minor vineyards, the most important in view of its reputation amongst other growers was the Brandon vineyard near Seaham owned by Alexander Warren. A bottle of his 1843 vintage red, together with James King's 1846 vintage, was tested against a bottle of Chambertin in 1848 at a meeting of the Hunter River Vineyard Association, and considered to be scarcely inferior to the famous French wine. In a blind tasting Dr Alexander Park actually preferred it.

On the Paterson River three vineyards of importance were planted in the 1830's and 1840's. Andrew Lang, a brother of John Dunmore Lang, planted the Dunmore vineyard which thrived under the management of George Schmid, 'a highly intelligent Wurtemberger', who had been brought to the colony by the proprietor. Near Gresford was the Lewinsbrook vineyard of Alexander Park, M.L.C., a nephew of Mungo Park, the explorer. The Upper Paterson boasted one of the most celebrated vineyards of all. Planted in 1843 by Dr Henry John Lindeman,
Cawarra was to become one of the largest and best known Hunter vineyards, and Dr Lindeman one of the greatest of the nineteenth century wine makers.

The largest concentration of vineyards was, however, on the Hunter River itself. On the lower Hunter stood the two vineyards planted by the Windeyer family: Tomago, the property of Richard Windeyer, and Kinross, the property of Archibald Windeyer, the longer lived and more important of the two. Between Raymond Terrace and Hinton was the Osterley vineyard of Edwin Hickey. However, most of the vineyards were grouped between Maitland and Branxton, on the alluvial soil adjoining the Hunter. Here were planted the Windermere and Luskintyre vineyards which, when advertised to let by W. C. Wentworth in 1848, consisted of thirty acres of which twelve were in full cultivation. Here too was the Kaludah vineyard which was established by the Scottish Australian Investment Company and placed under the management of the Frenchman, Philibert Terrier, who later had his own vineyard at St Helena, near Lochinvar. Past these were the Dalwood and Kirkton vineyards mentioned earlier. Also in the general area were several smaller and less important vineyards, such as Oswald and Aberglasslyn.

As mentioned before, the Hunter pattern was for large farming and grazing properties. J. D. Lang noted that in 1836 the farms varied from 500 to 2,000 acres, and were held by free immigrants employing convict labour. The areas devoted to vines were necessarily small though Lang does say that the wealthy proprietors had their vineyards managed by scientific and practical vine dressers from southern Europe and that landholders were already talking of exporting wine to India and England. At this stage, though, in most cases the vineyard was only a hobby.
Undoubtedly the most ambitious of the early plantings was undertaken at Kirkton where William Kelman decided in 1834 to take the risk of extending his vine cultivation to ten acres. His brother-in-law, though an ardent advocate of vine growing, had little confidence in the success of this enterprise: 45

I cannot say however that I think it prudent of Kelman with - or without his advice as the case may be - to launch into a plantation of 10 acres of vines! - Before he has proved the capabilities of his soil. I think it unlikely that his wine will ever be above the Vin Ordinaire and it is very doubtful whether that, even if managed with more skill and conveniences than he can hope for for many years, will meet a market at any price in Sydney.

Busby went on to recommend that Kelman should increase plantings of only the best varieties and intimated that his best prospect was the sale of cuttings at sixpence each!

Four months later it appears that Kelman was in trouble though the cause of this is not known. In a letter to Alexander Busby, James Busby expressed sorrow but not surprise at the result of Kelman's enterprise: 47

The management of ten acres of vineyard is no joke...
Tell him from me that I think he had better let distillation alone, and drink his wine new - there are many places (the majority of those in France) where the wine will not keep over twelve months - and they of course drink it before [it] spoils - tell him I should not at all object to a sample of it myself.

However, whatever the problems were they appear to have been solved since later references in Busby's correspondence are more encouraging. In 1838, for instance, Kelman was hoping for a valuable vintage to compensate for deficient grain crops. 48 In the following year Busby was asking his brother what Kelman valued his wine at: 49

Habit has made us both like it better than almost any other wine, and I intend to engage a couple of quarter casks annually for which I thought of offering £15 - that is about 5/- a gallon or £30 a pipe - do you think
he would consider it too low? If not it might be of use in fixing the price of any more he might have to dispose of. I think there would be little chance of any one giving him more - and few persons would I think drink it at all except those who have been accustomed to natural wine in France.

In 1843 Kirkton vineyard had fifteen acres in full bearing and Kelman was having particular success with the white Hermitage grape.

What is of particular interest in the above correspondence is the indication that the early years were very much experimental ones. Soils and grape varieties had to be tested and proved and the fact that Kelman was considering distillation indicates that his vintage had not turned out particularly well. In the circumstances, Busby's offer of 5/- a gallon is astonishing as, in bulk, this was a standard price for good colonial wines much later in the century. Also of interest is the reference to the lack of people used to table wines, a factor which was a great barrier to the rapid advancement of a colonial wine industry based upon the production of such wines.

This reliance on trial and experiment was caused by the lack of experience of the settlers. Few had first hand knowledge of wine making and such knowledge had to be modified anyway in view of the different conditions in Australia. At the same time this very lack of knowledge and need for experiment gave wine making a fascination that the other farming activities seemed to lack. The behaviour of crops was generally predictable, given knowledge of weather conditions, but, once the grapes had grown, wine makers still had the problem of converting the fruit into sound wines. It is interesting that the diary of George Wyndham which covers the years 1830 to 1840 is expansive on one topic only: his first attempts to make wine. The diary is a brief but interesting record of one
Wyndham's first attempt to grow vines was made in 1830, when he received, on 31 July, vine cuttings 'from Mr Busby'. Clearing and ploughing took place in August, but very few of the 600 vines took. 'They were dead before I got them.' He planted again in August 1831, and had 1,400 vines in January of the following year. In July 1832 he received cuttings of Muscatel, Black Hamburgh, Red Portugal, Green Malaga, Constantia, and Black Cluster varieties from Captain Wright. Further plantings took place in July and August 1833, with cuttings from Captain Wright and a Mr Townshend, including some extra varieties, and still more in June 1834, with Oporto and Gouais cuttings from James P. Webber of Tocal. The diary also gives details of the other vineyard activities during these years: clearing, hoeing, ploughing, staking, and pruning.

His first vintage was in February 1835. It was not a marked success as he had fermentation troubles with his Black Cluster grapes. He felt that his first wine 'should make good vinegar'. However, by the end of the month he was reporting success with his white wine. In the following year he reported that he had a vintage of 1,650 gallons which seems to suggest the produce of two or three acres, perhaps more if yields were low.

The diary is a very laconic document. Entries for later years give only a few references to wine and his crops suffering from heat damage. However, his description of his first vintage is interesting in that it is the sole first hand account we have by an inexperienced wine maker and to this extent emphasizes the problems and the very hesitant first steps being taken.

These early years could not have been greatly profitable
and it required much faith and persistence for the growers to persevere. James King, who made his first wine in 1836, stated that for many years at the outset the venture was unprofitable because of his lack of means and experience, and the limited plantation and varieties of grapes. Only later did he make money when the vineyards became larger, the plants were of greater growth and he had more experience. It should be mentioned here that the first vintage does not occur until three years after planting, and wine makers do not expect top quality until vines are several years older.

A further problem was the lack of skilled labour. The early settlers used mostly convict labour, though George Wyndham had the additional help of the aborigines to pull the maize. It is true that what labour had to be hired was quite cheap. In 1833 Wyndham hired 'Tom, ploughman' at five shillings, a quarter pound of tobacco, two ounces of tea, two pounds of sugar, ten pounds of flour, and ten pounds of beef per week. However, the problem at this stage, at least in vine cultivation, was not the cost of labour but its suitability, vine dressing being a skilled occupation. With a few exceptions, such as the Rhenish vigneron, F. A. Meyer, such labour was unavailable.

The solution, as J. D. Lang saw it, was the migration of families from wine growing districts in Europe as had been the case in the Cape Colony. He realized that 'formation of a wine-growing population in a country whose inhabitants have not been previously accustomed to the culture of the vine, is a matter of no small difficulty'. Accordingly, after the Colonial Government had introduced in 1835 a bounty scheme for importing families of immigrants, Lang, on behalf of Andrew Lang, and Edward Macarthur, on behalf of James and William, applied in March 1837 to Sir George Grey for help in importing
families from southern Europe. The Colonial Government had authorized Lang's importation of a hundred families of 'Agricultural Laborers, Shepherds, Mechanics and Vine-dressers', and of several families of vine dressers for the Macarthurs, for which they hoped to receive the bounty of thirty pounds for each family.

Unfortunately the British Government was not prepared to sanction this. It had not envisaged the bounty system's being applied to Continental countries, but to Great Britain and Ireland alone. 'It is obvious', wrote Grey to Edward Macarthur and J. D. Lang, 'that no direct benefit could be derived by this Country from the emigration to New South Wales of Families from the Continent of Europe'. His Majesty's Government would have no part of using funds from Land Sales to introduce 'Foreigners' into the Australian Colonies. However, in consideration of the arrangements already made, Lord Glenelg was prepared to allow each applicant six families from Europe - Germany in Macarthur's case - though this was not to be regarded as a precedent. Despite the assurances of the applicants that the families would not be left in destitution, the authorities were not prepared at this stage, to allow large migration of Europeans. Lang did import twenty one families from Scotland as tenants but these would have been no help to vine growing activities. It was not until 1847, when the Government changed its mind, that skilled European labour became available.

Consolidation in the 1840's

The 1840's saw an expansion and intensification of the practice of growing the vine and making wine, the growers seemingly undeterred by lack of experience and of experienced help. By 1843, as we have seen, there were 262½ acres under vine in the Hunter, producing 16,472 gallons of wine and 140
gallons of brandy. This is an average of only sixty three gallons per acre, a very small yield, but it is probable that a large number of acres were new plantings either not yet bearing or bearing only small crops. Perhaps too the season was not as good as it could have been. Apart from the figures themselves, the important feature is that the activity was now recognized as sufficiently significant to include in the Colonial Secretary's returns.

Acreage and production figures to 1850 are given in Table I. Unfortunately, not too much reliance can be placed upon them as an accurate measurement of acreage and production in any given year. They show at times great inconsistencies, even late in the nineteenth century, and it is obvious that some growers failed at times to provide the necessary details. Collection was made by local police, and county figures were compiled from police district returns. Supervision seems to have been lax. Fluctuations in production can be caused by poor seasons and bad vintages. However, there are inexplicably wild fluctuations in acreages, and the methods of compilation are confusing.

To take the latter point first, the initial set of statistics was published in June 1844, supposedly for the year 1843. The 1844 figures were published in the 1845 Blue Book as returns to 1 June, 1845, but the Maitland Mercury announces these as the 1845 figures. The figures for 1846 do not appear in the Blue Book for that year or 1847, but appear in the Maitland Mercury. From 1847 onwards the date of the Blue Book corresponds to the date given to the statistics. To complete the table from 1843 to 1850 it has been assumed the Mercury 1846 figures to be accurate. The production details for that year are missing, only the total having been published.

A more serious problem arises with the figures themselves.
It is impossible that all growers furnished returns. For example, the county of Gloucester had 33½ acres in 1843, ninety six acres in 1844, and forty seven acres in 1845. It is conceivable but unlikely that over sixty acres of new vines became productive in 1844, but there can be no logical reason for the alleged fall in 1845. In Durham, there were eighty one acres in 1843, seventy seven in 1844, and 102 in 1845. Here the 1844 figures show an unexplained fall by comparison with the unexplained increase in Gloucester. Similar fluctuations appear in the other county figures.

What, then, is the value of the statistics? In no one year can they be relied upon with absolute certainty. Yet, overall they provide an index of the increase in acreages and show the geographic pattern of growth and decline during the century in various areas. The production figures are less useful, though they can point to those years where drought, flood, disease or other problems affected production; the amount of brandy produced may also be a clue to a poor vintage. Then, too, they provide average yield per acre which can be a fair index of the development of the industry.

Besides involving the compilation of the first wine statistics, the years 1843-44 were important for two other reasons. First, an Act was passed, 7 Vict. No. 7, which, according to Governor Gipps, was designed "further to encourage the making of Wine and the gradual substitution of it for ardent spirits in the consumption of the Colony". Previous legislation controlling the sale of liquor had established the principle of a Publican's Licence for the sale of all liquors in quantities less than a fixed number of gallons. The first of these, 6 Geo. IV No.4, in 1825 reflected the colony's former liquor problems when it created a twenty dollar fee for a beer licence and a $100 fee for a beer and spirit licence. Later
Acts removed this distinction and also permitted employers or masters in country districts to sell or dispose of liquor to their free mechanics, tradesmen, servants or labourers, under certain conditions. However, the Act which first reflected the growth of the colonial wine industry was 2 Vict. No.18 of September 1838. In addition to a Publican's General Licence costing thirty pounds, a ten pounds Wine and Beer Licence was created. The main difference was that the latter did not permit the sale of spirits or mixed liquors containing spirits. Colonial wine growers selling in quantities of ten gallons or more were exempt from having to obtain a licence.

The significance of 7 Vict. No.7, assented to 15 November, 1843, was that it lowered the quantity that could be sold without a licence from ten to two gallons. With minor changes from time to time this figure has been operative ever since. From the Governor's standpoint this Act represented a significant concession to wine interests, since any wine maker could sell wine in moderate quantities without incurring financial penalty. A Justice of the Peace could decide who was a wine maker. However, the Act seemed to please few besides the Governor himself.

Reactions to the 1843 Act reveal some of the chief grounds on which future legislative battles were to be fought. Meetings were held at various places at which licenced victuallers objected to the two gallon provision. At the Maitland meeting in October 1843, they adopted a petition requesting the Legislative Council to restrict the sale of wine or spirits in any quantity to persons having a ten pounds licence, i.e., the Wine and Beer Licence of the 1838 Act. The private motive seems to have been the desire to preserve in their own hands the monopoly of the retail trade in all liquors, including wine. The main public arguments amounted to a cry against
unfair competition and a fear that unlicensed sales would lead, because of lack of official supervision, to drunkenness and immorality.

On the other hand, the wine growers were dissatisfied as they sought the removal of all restrictions on the sale of colonial wine. They urged the vital importance of vine cultivation as one of the staple sources of national wealth and, as the Mercury said, it was 'short-sighted legislation that would maintain impediments in the way of developing so valuable a branch of colonial industry'. The editorialist argued that the object of the old Council in the Act of 1838 was partly financial and partly moral, but that legislation would not make men virtuous, an end which would more likely be accomplished by the substitution of wine for spirituous and malt liquors. There would be a general improvement in the habits of the working population which in turn would render the tax fund of the community more ample and thus compensate for any loss of revenue caused by the removal of restrictions on sale. This argument seems somewhat naive, though it was probably sincere. There seems to have been a strong temperance motive among many of the early wine growers, though it is important to make the original distinction between temperance and total abstinence. James Busby, for example, was first President of the Temperance Society at the Bay of Islands in 1836. Probably their moral arguments were not meant purely for public consumption. It is certain at any rate that neither the wine growers nor the publicans were entirely happy with the 1843 Act, despite the Council's good intentions.

The second event of importance was the establishment in January 1843 of the Maitland Mercury, the first permanent newspaper north of Sydney. From the student's viewpoint this is a great asset since the rural newspaper provides far and
away the most comprehensive material in the nineteenth century for the study of a rural industry. Naturally, its value to the community itself was much greater. It provided a medium for the exchange of information and views, additional to the normal news gathering functions. In this way it supplemented the Sydney press, then the only effective means of widespread transmission of material. It was not, however, merely a passive medium of transmission. Being so much more closely identified with the Hunter Valley and with the varied interests of its communities, the Mercury was an active advocate for local interests, of which it held wine making to be one of the most important. In its first year alone this small bi-weekly published a dozen or more articles, letters, and editorials on what was, after all, still only a minor industry.

Its first editorial on the subject appeared three months after the paper was first published, inspired by a report of a dinner held in March by the Hunter River Society where, apparently for the first time, colonial wines made by William Ogilvie, Kelman and King were served. On that occasion the Mercury correspondent had declared:

When the vineyards have acquired age, and the gentlemen engaged in the manufacture have become more conversant with an art which has taken hundreds of years to bring it to perfection in Europe, there can be no doubt that wine will form a considerable article of export from the colony.

The 1 April editorial took up this theme, pointing out that in 1841 nearly £500,000 sterling worth of liquor had been imported into the colony, although the people of N.S.W. complained of financial embarrassment. Vine culture could help save this money for local spending and, at the same time, help correct the depraved craving for alcohol via consumption of ardent spirits. Although the art had been engaged in hitherto 'as little more than amusement, with perhaps a vague expectation
that at some 'distant period it might become a source of profit', there was hope for good profits when wine became an export article. Meanwhile the producer should sell at as low a price as possible and be content with 'what indeed is the most that any person in this country now looks for, a moderate return'.

The reference here is to the depression which gripped the colonies in the early 1840's, causing crises in labour and prices and consequent havoc in the established agricultural industries. Possibly this depression helped stimulate interest in vine cultivation as a new source of profit, its attractions being its suitability to the climate and soil, its relatively low production costs and high yields, and, above all, once vintage problems were overcome, its non perishable nature which made wine peculiarly suitable as an article for storage and export. At all events, wine making increased as an activity during these depression years. Of the major pioneer growers only George Wyndham at Dalwood found conditions too difficult to continue and, in 1845, he left Dalwood to take up properties first near Kyogle and then at Bukkulla near Inverell. Dalwood was advertised to let and, at that stage, its 3,000 - 4,000 acres contained about five acres of vines. When conditions improved Wyndham returned to Dalwood and resumed wine making operations there.

Those who stayed soon found the columns of their new newspaper a useful forum for discussion. That one of their most pressing problems was lack of technical knowledge and skill can be seen by the fact that a lengthy controversy developed late in 1843 over trenching and its suitability or desirability for vine growing purposes. The Mercury took the initiative by asking Alexander Warren of Brandon to contribute some thoughts on vine growing and wine making. This he did, though
he regarded it as too early to talk about wine making as he had too much to learn before he could communicate the results of his experiments to the public. For vine growing there was but one secret, 'Trenching', preferably to a depth of three or four feet. For over two months the controversy raged, the advocates claiming that trenching was needed for vigour and permanence in the vine. The opponents, led by William Kelman, argued that trenching was expensive and unnecessary as most soils were sufficiently porous and friable in the vine growing district, and cited the vineyards of Kelman, Ogilvie, Boydell, and Captain Pike as proof that ploughing alone would suffice. Though spirited, the controversy was essentially friendly in tone, all correspondents being anxious to see the industry flourish and proceed along what seemed to them the right lines.

Meanwhile correspondents continued to contribute articles on other aspects of vine cultivation such as pruning and thinning of grapes and the best varieties of vine. At the same time several new books appeared to aid the aspiring vine grower in his search for knowledge. Four were published in the first two months of 1844. George Suttor produced The Culture of the grape vine and the orange in Australia and New Zealand; and a translation of J. S. Kercht's Improved practical culture of the vine also appeared, to be followed by Henderson's An Essay on the making of wine. These provided a blend of overseas and colonial experience, though possibly the most important publication was the reappearance of William Macarthur's 'Maro' articles for the Australian in book form under the title Letters on the culture of the vine, fermentation and the management of wine in the cellar. The press and book publishers were aware of the growing interests and needs of the industry.
Important as this technical knowledge was to those engaged in vine cultivation, those who were being urged by the press or personal contacts to take up this activity were exercising their minds with an even more urgent question. As one correspondent to the *Mercury*, signing himself 'A.B.C.', expressed it:

No matter about the details at present. The question of trench or not trench, of long or short pruning, of what variety of grape to plant, or in what kind of soil, are all matters that can be arranged. The primary question is, can wine be produced here with a profit to the grower?

He asked for information from the practical wine growers of the colony on seven points:

1. The cost of clearing, preparing, planting, propping and fencing twenty acres;
2. The cost of apparatus for manufacturing the produce of twenty acres;
3. Annual cost of culture before bearing, and how long before bearing occurred;
4. Annual cost after bearing, including the expense of casks, and making and attending the wine until fit for sale;
5. The number of gallons to be expected from twenty acres if the whole produce were converted to wine and the refuse into spirits;
6. The selling price of the wine per gallon in this or any other part;
7. From the foregoing answers would it be profitable or not to grow wine in N.S.W.?

If these questions could be answered and thereby prove that wine growing would be profitable, it would grow so extensively as to become a greater export concern than wool, beef, or tallow.

The attempts made to answer these questions are of great
MAP SHOWING LOCATION OF EARLY VINEYARDS
interest to the student, since existing records are so meagre as to provide little or no information on profits made by the various wine growers. In fact the best proof one can obtain that wine growing was profitable to any degree is the fact that it continued to expand throughout the nineteenth century. Accordingly the estimates made from time to time provide almost the only clues to the potential profitability of the industry.

Two correspondents, calling themselves 'Silex' and 'A Vine Grower' replied to the inquiries of 'A.B.C.' 69 In addition to these calculations we have as a guide some estimates made by Busby in 1830, 70 and those published by Alexander Harris in 1849. 71 The details of these four calculations are given in Tables II-V.

In 1830 Busby was concerned only with the cost of production from one acre, his motive being to encourage the small settler to make wine for his own consumption and that of his family and a few servants. He attempted to calculate rather conservatively on the cost of labour, in that the labourer would not be engaged solely in viticulture though Busby assumes that he would be. Naturally, too, the growth of only one acre of vines would not involve cellaring and equipment expenses to the extent that the other estimates do. Busby's assumption of a 250 gallon yield is moderate and more realistic than the calculations of 'Silex' and Harris. Isolated cases of astonishing yields are recorded; for instance, one acre of Black Hamburgh at Dunmore supposedly produced 1,800 gallons and a ton of fruit besides in 1849; 72 but, as can be seen from Table I, overall Hunter averages were nowhere near 250 gallons per acre by 1850. Indeed, only in 1867 did the Hunter averages as a whole reach this figure. Obviously, the settler would have to choose his acre well and wait patiently
DISTILLERY AT PORPHYRY

From photograph in Newcastle Public Library.
CAWARRA HOMESTEAD AND CELLARS, ABOUT 1910

By courtesy of Lindeman’s Wines Pty. Ltd.
DR. HENRY JOHN LINDEMAN
Reproduced from 'Australian Men of Mark.'
for the vines to reach maximum production. In the circumstances, Busby estimates the cost of wine to the settler at slightly over one shilling per gallon or twopence a bottle. He concludes that, as a matter of course, the settler who has fulfilled his family's needs for wine will begin to extend his vineyards since it would be a very poor sort of wine that could not be sold at a handsome profit.

The calculations of the other three are all based on the commercial prospects of a larger vineyard, twenty acres in the case of 'Silex' and 'A Vine Grower' and ten acres in Harris's estimates. The figures provided by 'Silex' are, on the whole, the least reliable since he ignores some likely expenses included by the others, especially the cost of planting, of building cellars, and of a wine press. His assessment of the return is probably too optimistic since it is unlikely he could average 315 gallons to the acre, especially in the first year of bearing, and still produce brandy from the refuse, which would need to be some 900 or 1,000 gallons to produce three hogsheads. He assumes an average price of nearly three shillings per gallon, but argues that if colonial wine should become an object of general attention, ten pounds per pipe, which is roughly two shillings per gallon, would be a remunerating price. If his yields are optimistic, his assessment of the selling price of wines is much more reasonable. Furthermore, he argues that 'A.B.C.' is in a sense putting the cart before the horse: 73

I much fear, tempting as the product appears to be on paper, that it will induce few to become wine growers, without being first initiated in the mysteries of the art. Unless this knowledge be first acquired, it will be impossible for anyone to realize the annexed calculation.

Nevertheless, despite 'Silex's' warnings his 'rough estimate' is too rough to be reliable, especially since he argues a
profit can be made, on all basic and current capital, in the first year of production.

Conversion of Harris's estimates to a twenty acre vineyard provides an interesting comparison with those of 'A Vine Grower'. Both set out to give an exhaustive survey of costs, including interest paid on capital, though 'A Vine Grower' assumes that the land has been granted or is already owned by the prospective grower, and does not allow for the cost of housing a vigneron and assistants. On the other hand he allows for a slightly higher interest rate, ten per cent against Harris's eight per cent, though conceding that six or seven per cent might be obtainable. He states that many farms on the Hunter already had premises suitable for making and housing wine, and that some land already cleared and stumped and found unfit for grain could be converted into vineyard. Many thousands of acres were also fitted for vine cultivation without the need for trenching, hence the inclusion of the trenching costs as an optional item. His assumed return of 250 gallons per acre is the closest of the three estimates to Busby's, though his selling price of four shillings per gallon is the most optimistic of the three. On his figures, a profit could be made by the fifth year, i.e., the third year of production. Harris's estimates are most detailed. He alone allows for a lower return in the first year of production and his price of two shillings and sixpence per gallon is conservative though he assumes a somewhat high average of 400 gallons per acre. On his figures, the grower would be in front by the seventh year, i.e., the fifth year of production.

Allowing for minor differences, the estimates of 'A Vine Grower' and Alexander Harris show considerable agreement if Harris's figures are converted to twenty acres and the optional trenching costs are added to the former's estimates. Their
estimates for clearing, stumping and trenching are identical, as are fencing costs. Their annual costs after the first two years are virtually identical, £483 against £490. Costs of cellerage and equipment are fairly close. Harris's annual costs for the first two years are higher, largely because the cost of trenching makes his capital outlay higher and his interest repayments correspondingly greater. With trenching the costs of 'A Vine Grower' for outlay and the first two years total £1,585, those of Harris £1,950. Thereafter, as we have seen, their annual costs are identical. Their assumed returns are identical, £1,000 per annum from the second year of production, though derived in different ways, possibly by over estimating either yield or market value of wine.

Since it is likely that some of these costs could be saved, as 'A Vine Grower' suggests, the conclusion can be made that with normal luck a wine producer could repay his capital investment plus interest and be making a profit by the seventh year, or fifth year of production. 'A Vine Grower' suggests a profit of upwards of 100% would be made on current outlay, and Harris's figures agree with this. The normal luck would consist of relative freedom from bad weather, including flood, and from vine diseases, of which the worst varieties had not yet reached the colony. Fortunately most seasons were reasonable, as bad years like 1847 were comparatively infrequent.

There are a few additional pieces of evidence. A set of estimates for a forty acre vineyard was presented by one John Hector to a meeting of the Geographical Society in London in April, 1847. These seem closer to those of 'Silex', and his estimate of 400 gallons to the acre seems excessively high, though he assumes a market value of only two shillings per gallon. He mentions that a Mr Boydell was finding no difficulty in disposing of the whole of his vintage at five shil-
lings per gallon. In the prices current in Maitland in 1849, colonial wine in draught was selling for from three shillings and sixpence to five shillings. At a meeting of the Hunter River Vineyard Association in November 1847, 77 Edwin Hickey mentioned that he had sold his hock to a Sydney house for thirty pounds per pipe, which is nearly six shillings per gallon. At the same meeting calculations were received from an unnamed member showing that the grower, by the end of the seventh year, would have repaid the original capital, intermediate outlay and interest. The Committee of the H.R.V.A. hoped that members would soon prove the essential correctness of the calculations, but members said that their experience was too slight to comment as yet on the profits of wine making.

The evidence is not conclusive, but tends to support the most conservative calculations of 'A Vine Grower' and Harris. With reasonable care and luck wine could be grown as a commercial venture, though whether it could support the claims made in 1846 and 1847 by Henry Carmichael was a problem only the future could solve.

Whether or not it could be proved conclusively that vine growing was profitable, the acreage under vine continued to increase. By editorial and article the Mercury and the vine-growers offered encouragement and information, and though progress was slow it was made nonetheless. The figures showing exports from the Hunter district, published regularly by the Mercury, show that no wine was exported in 1845. However, in an article on local industries the Mercury was able to say: 'The growth of the vine is greatly extending, though but little wine has been yet brought into market; manifest improvement is however visible in what is brought forward'. 78 Further encouragement came from the Hunter River Agricultural
Society in the form of wine prizes which, though not substantial, introduced a competitive element and an opportunity for expert and impartial judgement, in theory at least. However, at their first three Annual Ploughing Matches and Shows in 1844-5-6 there was no response from wine growers, though two samples from W. C. Wentworth turned up too late for judging at the 1846 Show. Only in 1847 were the first prizes awarded, though it is not known how many samples were submitted.

Depression or not, there were about 300 acres of vines in the Hunter in 1846. The 1846 census showed a steady expansion of population over the 1841 figures in the main population centres like Newcastle, Maitland, Dungog, Morpeth, Singleton, Muswellbrook and Paterson, only Raymond Terrace showing a fall in numbers. In fact the worst years were over, though the gold rush decade of the 1850's was to provide a further crisis for agriculture. By then, though, the wine industry, thanks to the gains of the years 1847-50, was strong enough to survive.

The Hunter River Vineyard Association

The years 1847-75 were, despite problems and setbacks, years of great expansion and achievement for the wine industry. That they were so is due largely to the formation in May 1847 of the first body in Australia catering solely for those interested in vine growing, the Hunter River Vineyard Association, and to the exertions of some remarkable men connected with the industry and the Association.

There is little doubt that its formation arose largely from discontent with the existing agricultural organization. In 1843 the Hunter River Society had fallen on hard times, no doubt partly caused by disillusionment resulting from the depression. In January 1844, despite a 'miserably scanty' at-
tendance at its special meeting, the Society reconstituted itself as the Hunter River Agricultural Society with more limited objectives. Right from the start there was dispute over the place of viticulture in the Society, and rivalry between the champions and opponents of the vine. Much of the dispute was on economic grounds, but the existence of different moral views on alcohol gave the debate on vine growing a heat missing in other agricultural disputes. This has been a strong and recurring theme in Australian history to the present time.

The first indication of real trouble came at the Annual Show dinner in 1846. Henry Carmichael, in responding to a toast, 'Prosperity to the Hunter River District', took the opportunity of delivering a number of remarks on the importance of vine culture. Man he said not only lived, but he lived well and comfortably. The district was peculiarly well suited to vine culture, in many cases more so than wheat or corn. In a national point of view he considered the cultivation of the vine of more importance than that of wheat, despite the existing prejudices against colonial wine.

On this occasion the worst that he received was derisive laughter at this over valuation of wine, the reaction no doubt being partly prompted by the readily available refreshments at the dinner. On the whole his speech met a good humoured reception though some critical remarks were made by following speakers. But when Carmichael repeated his performance at the 1847 Show 'Lunch' - it started at 5 p.m. - the reaction was hostile and the uproar so great that much of what he and his supporters had to say was drowned out. After a few preliminary remarks he declared that wine was of no less national importance than the 'now much vaunted main staple, wool (cheers and a few groans)'. But when he equated
one acre of vines with 1,000 sheep he was greeted with laughter and noise, and uproar followed his statement that ten acres of vines would equal in profitability 10,000 sheep. Though he appealed not only to national importance but to pecuniary advantage the uproar continued.

From a later speech by a Mr J. Reynolds it becomes evident that one of the causes of hostility was the practice of vine growers' selling wine to their men and paying men in wine a nominally higher wage than the farmers could afford, thus depriving agriculturalists of the labour they so badly needed. His remarks were supported by Helenus Scott, who had supported Carmichael at the 1846 dinner, and who argued that though Carmichael was right about profits the vine growers' activities were unfair to farmers and licensed victuallers. Though the Chairman, Henry Dangar, added some support to the pro wine faction the general impression was that the bulk of the eighty guests were hostile to Carmichael's remarks.82

Carmichael immediately wrote to the Mercury, saying he was having difficulty with some of the members of the Society and that his motives were being misunderstood. He believed that most agricultural capitalists did not give enough attention to vine growing and suggested that John Eales, a competent woolgrower, should estimate the cost of managing 10,000 sheep, while he, in turn, would give from authentic sources the cost of managing ten acres of vineyards. The object would be to guide investors in the best use of available capital.83 The challenge does not appear to have been taken up.

Those who supported Carmichael did not confine their attitude to words. A circular was swiftly distributed to a select list of people who were invited to form 'an association of vine growers for the purpose of communication and mutual advantage'.84 It is not known who drew up the list of invita-
tions but Carmichael and James King probably had a hand in its composition. Carmichael, King and Lang were later credited with the foundation of the Hunter River Vineyard Association. A meeting, chaired by James King, took place on 19 May at the Northumberland Hotel and agreed to form a society 'for the purpose of promoting the culture of the vine and turning its products to the most profitable account'. Ten attended: King, Carmichael, Kelman, Andrew Lang, Archibald Windeyer, William Burnett, Edwin Hickey, J. Phillips, W. Dunn and W. E. Hawkins, the last being appointed honorary secretary. Thirteen resolutions were adopted, governing the composition and mode of procedure of the society, to be known as the Hunter River Vineyard Association.

The H.R.V.A. was to meet half yearly on the first Wednesday of May and November. General business was to be discussed from noon till 3 p.m., at which stage a dinner would be held. Members were to contribute annually eight bottles of wine for examination at the meetings and consumption at the dinners, and each had to supply details of the growth and making of the wines produced. Friends, one per member, could attend the dinner. Members could propose for membership others who were cultivators of the vine and bona fide wine makers, and at the next general meeting applications would be voted on, one black ball in five to exclude from membership. A joining fee of ten shillings and an annual subscription of five shillings were imposed. Special meetings could be called on the initiative of any five members.

A statement was prepared which, after discussing the suitability of the district to vine culture, outlined the aims of the Association:

We happen to have emigrants from a country which does not produce wine; our knowledge of its growth and manufacture, therefore, is only the result of our reading and limited
experience in this. We may be said, then, to be merely groping our way singly in the dark. To make the most of our position - to make known to each other such favourable points and circumstances as we may notice in our operations - to exhibit the result of our individual doings - and to meet, periodically, for that purpose, is the object of the present proposed association.

On printing this statement, the Mercury added an editorial which, while wishing success to the new venture, strongly criticized the framers of its laws for its evident desire to keep the society 'select'. It is true that the method adopted of a list of invitations to a selected group, and the proposals for blackballing candidates, rather than submitting them to a simple majority vote, would seem to bear out the justice of the criticism. In the light of the division evident at the Show Dinner, however, it is not surprising that some of the vine growers wished to ensure what they considered to be the right type of membership, though their actions would more likely perpetuate the divisions already existing, if not exacerbate them.

With minor adjustments and rule fluctuations the H.R.V.A. functioned on the lines set down at the first meeting, though in 1852 it decided on yearly meetings to be held in May instead of the half yearly meetings. The Mercury diligently published full reports of the proceedings at each meeting. In 1854 the Association financed and published a summary of its proceedings from its inception to 1853. This forms a convenient quick reference to the first years of the Association, though in some ways the newspaper reports are more detailed, especially about the wine tastings.

The success of the H.R.V.A. in its early years was the result of a membership which, though small, was dedicated and energetic. In particular, much credit has to be given to James King who was undoubtedly one of the most outstanding
figures in nineteenth century viticulture. His energy and personality dominate the first six or seven years of the Association, though not, perhaps, quite as much as appears from the Historical Summary which seems to have been put together by King or an ardent admirer.

He was born in 1800 in Hertfordshire, migrating to the colony in 1827. Though granted 1,920 acres at Irrawang, near Raymond Terrace, he spent most of his time until 1835 in Sydney, leaving the work at Irrawang to overseers. When he finally forsook his merchant activities to settle at Irrawang he became noted as a pioneer in viticulture and pottery and achieved success in both fields. One of his great strengths seems to have been an extremely realistic attitude; he had the capacity to realize his own deficiencies of knowledge or experience and to apply himself indefatigably to remedying them. While doing so he was careful never to overreach himself. In 1854, twenty two years after he first planted grapes, he had only fifteen acres under vine, of which six formed an experimental vineyard, and only then was he expanding to the extent of another nine acres. It is interesting that his experiments led him to persevere with one white grape only, Shepherd's Riesling - almost certainly the French Semillon variety. Now known as Hunter Valley Riesling, it is adopted by present day makers as their main white wine variety.

King was a great believer in two things, experiment and scientific study. He experimented not only with grape varieties but with the various methods of training and pruning the vines and the right soils, position and aspect for his vineyard. In addition he tried to acquire a knowledge of chemical laws and principles, corresponding with the eminent German chemist and philosopher, Baron Von Liebig. What he
learned he was ever ready to pass on. As early as 1845 an article appeared in the *Mercury* translating some of Liebig's remarks on manuring of vines. A covering letter was signed 'A Subscriber', Raymond Terrace; almost certainly this was King. Other articles and letters of encouragement from the Baron appeared regularly in H.R.V.A. meeting reports. King corresponded regularly with Liebig until his death in 1857, and learned much from the great scientist.

A second benefit to the colony's wine industry was that King's correspondence with Liebig helped publicize the industry overseas, as did his visit to the Continent and his success, with William Macarthur, at the Paris Exhibition of 1855. He received a medal, and some of his and Macarthur's wines were chosen to be placed on the table in front of Napoleon III during the closing ceremony. It is not recorded what the Emperor actually did with them. However, Charles Ebenau, who acted as interpreter when King met the Duke of Nassau, wrote to him that his red wine was equal in all respects to that of Asmanhausen, 'which, as you know, holds the first rank among the Rhenish red wines'. Ebenau also remarked that the white wines appeared more mature than German wines of a similar age, a fact which King had noted and which seems to be true of present day Hunter wines.

King also experimented with sparkling wine, expending over £500 in wages, apparatus and material, and without great success though one gentleman mistook it for French champagne. While in England, King also tried through Mr Oliviera, M.P., to have the English policy of importing and manufacturing spirits at a comparatively low duty reversed, since wine was excluded from the poor and the product of the still was injurious. This came to nothing. In fact King's pamphlet, *Australia may be an extensive wine-producing country*, probably
stemmed from this, since it was written in the belief that wine was better for the populace than ardent spirits and that the law should be changed to encourage the sale of wines.

For the H.R.V.A., King was a wealth of information gained from private study and experiment and his association with Liebig. For Hunter wines he was an ardent propagandist. His death overseas in 1857 deprived the colonial wine industry of a man whose intelligence, curiosity, enthusiasm and energy place him amongst the greatest of the early colonial wine makers.

The H.R.V.A. functioned admirably in its first few years. There was no lack of controversy, mainly about rules and the disciplining to be applied to members who broke them. Most of the controversy was caused by King who was determined that the Association should adhere closely to the aims and the rules embodying them. In 1848 he tried unsuccessfully to have the rule on members sending wine to the meetings rigidly enforced, though the meeting passed a modified resolution that members should comply with rules and could be denied membership if they had no valid excuse for failing to comply. In 1849 he moved that only those who cultivated two acres or more and made wine for market should be members. This motion eventually lapsed. King's motives were clear in both cases. Only effective membership could provide the testing of wines and interplay of comments and experience necessary for the progress of the industry.

Fortunately, most of the founder members were anxious to share their knowledge and expose their products to general comment. For example, though 1847 was a bad year, according to Carmichael, he still sent in a sample to see how far wine of a fair quality might be made in an unfavourable season. At the same meeting, Archibald Windeyer produced his wines
only from a sense of duty, as he felt that he was too inexperienced and his wines were inferior to those of older members. Nevertheless, the growers kept producing wines and the reports of the wine tastings were duly published in the press. It had been decided in 1846 not to publish members' individual comments but to let the reporter produce a consensus of the opinions on the various wines. Two years later a system of 'blind' tasting was introduced, whereby the growers' reports were read out after the wines had been tasted. The growing membership also made it necessary to limit the samples to two per grower. Comments published in the press show that discussion was frank, though it is impossible to say how their wines reported on favourably compare with those of today.

The H.R.V.A. soon revealed that as well as acting as a forum for the discussion of wines and wine growing methods, it could take concerted action in the interests of the industry. In 1849 it agreed to a petition drawn up by James King, requesting the Legislative Council to ask the Home Government for a reduction in the import duty on Australian wines. Cape wines entered Britain at a duty of two shillings and ninepence per gallon, but foreign wines had to pay double, and Australian wines were classed as foreign. King believed that this was because of ignorance in Britain that Australia was producing exportable quantities of wines. This is probably correct since the Imperial Act regulating duties was 2 William IV cap. 30., passed in 1831 at which stage the colony had no wine industry to speak of.

The move by the H.R.V.A. was taken up quite strongly. King reinforced it by sending a series of letters to Earl Grey, the Society of Arts, the Australian Agricultural Company, the Bank of Australasia and a London mercantile firm, all on the sub-
ject of colonial exports in general and the wine industry in particular. Petitions were presented, and in September 1849 James Macarthur presented resolutions to the Legislative Council to have it lend support to the campaign. The campaign was soon successful. In January 1850, Earl Grey informed the colonial authorities that their wine would be admitted on the same terms as Cape wine. On this, the Mercury remarked that now that competition was on equal terms it was up to the skill and enterprise of local growers to ensure success.

For its part in this advance, and for its general activities the H.R.V.A. quickly gained a good reputation. On the formation of the New South Wales Vineyard Association in 1850, the Mercury declared that the success of the H.R.V.A. and the public attention it had aroused had influenced the formation of the new society, whose objects and proposed course of action were similar. It also commented on the extensive publicity the H.R.V.A. had received in the colonial press and in leading journals in Britain, one of which was the Edinburgh Journal. An editorial in 1854 further commented on the practical nature of the Association and on the improvement evident in the wines produced at meetings. Clearly the Mercury, at least, thought the Association a success, a judgement made more valuable by the paper's general willingness to criticize strongly where necessary.

The other development worthy of mention in the period to 1850 was the modification, in 1847, of the British Government's stand on the importing of foreign labourers. It will be recalled that in 1837 the requests by Andrew Lang and the Macarthurs for large scale migration of foreign labourers and vine dressers had been refused on the grounds that such migration could not benefit the colony. But with the end of
transportation in sight, large landholders, alarmed at the loss of cheap labour, first of all attempted to obtain coolie and Indian labour by forming an association to petition the Home Government. The 772 signatures include those of all the main Hunter wine growers, though, had the petition succeeded, they would probably have used this labour for general farm purposes rather than the difficult aspects of vine dressing. In the event the Home Government refused, saying that such labour would tend to cause deterioration in the community.

By 1847 a labour shortage was developing and requests for application of the Bounty system to European labourers met with a more sympathetic hearing. The initial step seems to have been taken by J. N. Beit of the firm John Beit and Sons, Nelson, New Zealand, who had been responsible for the introduction of Germans into New Zealand in 1843. He forwarded a number of proposals to the Colonial Secretary for the introduction of German immigrants and the Colonial Secretary promptly sought the advice of the Immigration Agent, F. L. S. Merewether. Merewether's long reply was critical of the form of Beit's proposals since they would involve the Government's taking charge of the migrants, placing them in suitable positions, and adjudicating numerous complaints and appeals when things went wrong. In reviewing the history of the Bounty system in both New South Wales and New Zealand, Merewether makes it quite clear that the Government wished to avoid as much involvement and responsibility as possible in the process of bringing people to the colonies. Furthermore they were not keen on the encouragement of German labour without German capitalists to contribute to the Land Fund from which Bounties were paid.

However, while rejecting Beit's particular plan, Merewether thought that at that stage of the colony's progress it would
be advantageous to encourage labourers skilled in occupations in which British labourers were unskilled and that three or even more shiploads could be absorbed immediately on arrival. He proposed therefore that settlers who, with permission, brought out at their own expense skilled labourers and their families, should receive a Bounty of thirty six pounds for a married man and his wife and eighteen pounds for each child over fourteen years old. Testimonials of good character would be required of the immigrants. Settlers would have to apply for labourers of particular descriptions not obtainable from Great Britain. Wine and silk are given as examples.

FitzRoy approved Merewether's proposals and issued, subject to the approval of Her Majesty's Government, a Notice embodying the proposals. $20,000 was set aside for the scheme which was to be in force for two years. The scheme was duly put into effect, and the services were enlisted of William Kirchner, a German living in Sydney, who had been requested earlier by Merewether to give his suggestions on German migration. Kirchner was probably a private agent of the settlers, since Merewether did not think that the Government would need an agency and suggested that Beit's offer of his services should be refused.

The response from the colonial vine growers was rather disappointing, especially from those of the Hunter. Kirchner visited the Valley in May 1847 to execute agreements with parties who wished to import vine dressers and coopers. By September, however, only forty three families had been requested compared with sixty in the southern district and the county of Cumberland. Even this may have been an exaggerated estimate since FitzRoy's dispatch of 11 November lists the Hunter growers as having received permission for only twenty three families of wine makers, vine dressers and coop-
ers. Most growers asked for one or two families and only Andrew Lang, Helenus Scott, and J. Pike requested three. The Maitland Mercury was critical of the vine growers for not taking advantage of the Government's scheme. In a later editorial they again remarked how surprising it was that only 150 families had been applied for in the colony, and no more than half of the money allocated would be used. Apparently the cause of the apathy was the belief that only current growers could apply, though in fact those intending to do so could apply. The paper also remarked that some vine growers were waiting to poach vine dressers from their neighbours on arrival in the colony, 'a very good specimen of New South Wales selfishness'.

Kirchner duly left for Germany in February 1848 on what must have been a difficult mission, given the confused state of Germany in 1848. He spent about a year in engaging two shiploads of migrants, and the first group of those engaged by Hunter vigneron arrived at Morpeth on 12 April 1849 and were forwarded to their respective employers. A second and final shipload arrived later in the year, but according to a notice issued by Kirchner's Sydney agent, not all of the vine dressers had been engaged while overseas and some were available for engagement on arrival in Australia.

The arrival of German vine labourers did not prove an unmixed blessing. In following years a number of court cases involving German labourers were heard in Maitland, some of the circumstances suggesting communication difficulties. While the H.R.V.A. at its November meeting in 1849 passed a vote of thanks to the Government for affording means of introducing these labourers, five of the members expressed dissatisfaction with the selection of these immigrants and stated they were not acquainted with the culture of the vine. However, the
following year Henry Carmichael, while expressing reservations about their method of setting vine cuttings, expressed the belief that they had been helpful with implements and practical facilities and had placed growers 'considerably in advance of what we were'. Some had proved troublesome and this he attributed to the mode of selection and distribution in the colony. In 1853, James King believed that their arrival had been of great help in the manual operations of his vineyard.

In the long run, the benefits were probably considerable. Early difficulties of adjustment were natural, including those involving the translation of German experience to Australian conditions. Many Germans, some descendants of the migrating vine labourers, eventually started their own vineyards in the Pokolbin-Rothbury area and formed a large part of the Hunter wine industry as it contracted slowly through the nineteenth century to that area.

**Conclusion**

Many trials were to be undergone and problems faced and solved before the Hunter Valley wine industry became a secure and profitable occupation. It might be argued that not till the late 1950's did it really start to come into its own. At all events it would be a gross exaggeration to claim that by 1850 it was firmly established on a commercial basis, even as a minor industry. What can be said, however, is that it was well enough based to survive the difficult period of the 1850's when the gold rushes made agriculture for some time a hazardous enterprise largely through labour difficulties. Though growth was stifled, the industry survived to make rapid progress through the remainder of the century.

The fundamental soundness of the industry was the result of a combination of factors. Foremost amongst these was the geographic and climatic suitability of the region. Conditions
for growing the vine were so good, and yields so abundant that, despite the experiments and clumsiness of the early wine makers, enough marketable wine could be made to satisfy the grower and hold out prospects of a good profit as his skill gradually increased. Fortunately he had not yet to face the vine scourges, oidium and phylloxera, and so was relatively disease free, his main scourges being caterpillars and the vagaries of the weather.

Secondly, it is difficult to over estimate the debt later wine growers owed to the pioneers of the industry. The Macarthurs, Blaxland, Busby, King, Kelman, Carmichael and Henry Lindeman were all men of determination, persistence and intelligence. Doubtless their activities were not pure altruism, and the profit motive played a prominent part in their determination to succeed. But they were generous in sharing information and experience, a characteristic which has not always been evident in the industry in later years. The move to form vineyard associations in the late 1840's was a formalization of this process, and in the Hunter the H.R.V.A. was to play a dominant role until the mid 1870's, both in the exchange of experience and as the focal point for pressing for conditions which would benefit the industry.

Thirdly, the industry did receive encouragement from outside. Already mentioned has been the help of the colonial press, from country newspapers like the Maitland Mercury to the major Sydney papers, especially the Sydney Morning Herald, as publicists for vine growers' activities and propagandists for some of the battles they were fighting. Also of importance, though this is in part to anticipate the future slightly, is the colonial legislature's reasonable attitude to the requests of colonial wine growers, caused in part by the presence in the Legislative Council of such men as Richard Win-
deyer and James Macarthur. Some matters involving legislation have been discussed earlier. It is a pity that the gains made here and in the Colonial Wine Sales Act of 1862 were later diminished, largely through the fault of the industry itself. But the cooperative nature of the legislature and the Home Government at this stage needs to be stressed, whatever the future was to provide.

In 1850, then, the factors discussed had produced a situation where the infant wine industry could face the second half of the century confidently. Though it was small, though its produce varied in quality and faced an uncertain and limited market, it had started well enough to make most growers feel that it was worth persisting with, if not as their sole means of livelihood then at least as a part of their general commercial activities.
**APPENDIX**

**TABLE I**

Acreage and Wine Production in
the Hunter Valley 1843-50

**A. Acreage**

<table>
<thead>
<tr>
<th>County</th>
<th>1843</th>
<th>1844</th>
<th>1845</th>
<th>1846</th>
<th>1847</th>
<th>1848</th>
<th>1849</th>
<th>1850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bligh</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>2½</td>
<td>3½</td>
<td>3½</td>
<td>4½</td>
</tr>
<tr>
<td>Brisbane</td>
<td>71½</td>
<td>33</td>
<td>61</td>
<td>59</td>
<td>66</td>
<td>79</td>
<td>80</td>
<td>74</td>
</tr>
<tr>
<td>Durham</td>
<td>81</td>
<td>77</td>
<td>102</td>
<td>107</td>
<td>176</td>
<td>162</td>
<td>193</td>
<td>205½</td>
</tr>
<tr>
<td>Gloucester</td>
<td>33½</td>
<td>96</td>
<td>47</td>
<td>56</td>
<td>90</td>
<td>82</td>
<td>115</td>
<td>104½</td>
</tr>
<tr>
<td>Hunter</td>
<td>13</td>
<td>35</td>
<td>20½</td>
<td>19</td>
<td>18</td>
<td>19½</td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>Northumberland</td>
<td>61½</td>
<td>69</td>
<td>59</td>
<td>92</td>
<td>85</td>
<td>112</td>
<td>139</td>
<td>151½</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>262½</td>
<td>312</td>
<td>292½</td>
<td>339</td>
<td>437½</td>
<td>457¼</td>
<td>549½</td>
<td>569½</td>
</tr>
</tbody>
</table>

**N.S.W. Total**

| 508 | 566 | 611 | 827 | 894 | 876 | 951 | 1,069¾ |

**B. Production in gallons**

<table>
<thead>
<tr>
<th>County</th>
<th>1843</th>
<th>1844</th>
<th>1845</th>
<th>1846</th>
<th>1847</th>
<th>1848</th>
<th>1849</th>
<th>1850</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bligh</td>
<td>20</td>
<td>120</td>
<td>70</td>
<td></td>
<td>40</td>
<td>74</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Brisbane</td>
<td>2155</td>
<td>2750</td>
<td>2510</td>
<td>1001</td>
<td>4467</td>
<td>4656</td>
<td>655</td>
<td></td>
</tr>
<tr>
<td>Durham</td>
<td>6907</td>
<td>9629</td>
<td>8972</td>
<td>8157</td>
<td>29,808</td>
<td>25,360</td>
<td>34,148</td>
<td></td>
</tr>
<tr>
<td>Gloucester</td>
<td>1430</td>
<td>3240</td>
<td>3170</td>
<td>7060</td>
<td>4045</td>
<td>12,670</td>
<td>9071</td>
<td></td>
</tr>
<tr>
<td>Hunter</td>
<td>400</td>
<td>480</td>
<td>370</td>
<td>389</td>
<td>957</td>
<td>1581</td>
<td>1330</td>
<td></td>
</tr>
<tr>
<td>Northumberland</td>
<td>3560</td>
<td>5382</td>
<td>5000</td>
<td>5249</td>
<td>11,001</td>
<td>17,480</td>
<td>16,299</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16,472</td>
<td>21,601</td>
<td>20,092</td>
<td>25,137</td>
<td>21,896</td>
<td>50,352</td>
<td>61,772</td>
<td>61,503</td>
</tr>
</tbody>
</table>

**N.S.W. Total**

| 33,915 | 50,666 | 54,996 | 53,965 | 97,040 | 95,113 | 111,085 |

**Note:** Portions of the counties are outside Hunter Valley limits but few, if any, vines were grown in these areas. For all practical purposes, the above figures correspond with Hunter Valley figures.
### TABLE II

**Estimate of Expenditure and Return on One Acre of Vines by James Busby in 1830**

<table>
<thead>
<tr>
<th>Expenditure for 4 years</th>
<th>£. s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparing the ground, actually the cost of one assigned servant to do the work</td>
<td>16. 0. 0</td>
</tr>
<tr>
<td>Planting and cultivation for 4 years, at £8 p.a.</td>
<td>32. 0. 0</td>
</tr>
<tr>
<td>Capital sunk</td>
<td>£ 48. 0. 0</td>
</tr>
</tbody>
</table>

**Annual Outlay**

<table>
<thead>
<tr>
<th>Item</th>
<th>£. s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest</td>
<td>4.16. 0</td>
</tr>
<tr>
<td>Dressing</td>
<td>8. 0. 0</td>
</tr>
<tr>
<td></td>
<td>12.16. 0</td>
</tr>
<tr>
<td>Additional casks</td>
<td>1. 4. 0</td>
</tr>
<tr>
<td>Maximum annual outlay</td>
<td>£ 14. 0. 0</td>
</tr>
</tbody>
</table>

**Return**

From 5th year on, average produce: 250 gallons (1,200 bottles)

Annual cost per gallon, approximately: 1/- per gallon or 2d. per bottle.
<table>
<thead>
<tr>
<th>Expenditure</th>
<th>£. s. d.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of land, minimum £1 per acre</td>
<td>20. 0. 0</td>
</tr>
<tr>
<td>Clearing, stumping, falling</td>
<td>50. 0. 0</td>
</tr>
<tr>
<td>Ploughing</td>
<td>20. 0. 0</td>
</tr>
<tr>
<td>Fencing (240 rods)</td>
<td>42. 0. 0</td>
</tr>
<tr>
<td>Stakes</td>
<td>90. 0. 0</td>
</tr>
<tr>
<td>Three vats</td>
<td>30. 0. 0</td>
</tr>
<tr>
<td><strong>Capital outlay</strong></td>
<td><strong>£252. 0. 0</strong></td>
</tr>
</tbody>
</table>

| Annual Outlay for two years                    |          |
| Labour, £100 per annum                         | 200. 0. 0|
| Tools                                          | 10. 0. 0 |
| Casks                                          | 40. 0. 0 |
| **Total**                                      | **£250. 0. 0** |

| Total Expenditure for third year               |          |
|**£502. 0. 0**|

| Return                                          |          |
| Produce 3rd year averaging 3 pipes             |          |
| (315 gallons) per acre - 60 pipes              |          |
| at £15 per pipe                                | **£900. 0. 0** |
| Refuse would produce 3 hogsheads of inferior brandy at £15 each, which would pay cost of a 10 gallon still and other small apparatus | **£45. 0. 0** |
| **Total Return**                                | **£945. 0. 0** |
TABLE IV

Estimate of Expenditure and Return on Twenty Acres of Vines by 'A Vine Grower' in 1844

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearing, stumping, levelling at £5 per acre</td>
<td>100</td>
</tr>
<tr>
<td>Trench ploughing</td>
<td>40</td>
</tr>
<tr>
<td>Fencing a four rail fence; carting for ditto</td>
<td>40</td>
</tr>
<tr>
<td>Stakes for 50,000 plants, 5½ ft. long</td>
<td>125</td>
</tr>
<tr>
<td>Planting cuttings, preparing and procuring them, driving in stakes and carting manure</td>
<td>70</td>
</tr>
<tr>
<td>Cellar and premises to keep wine in</td>
<td>300</td>
</tr>
<tr>
<td>Tools, vats, horse and cart</td>
<td>50</td>
</tr>
<tr>
<td><strong>Capital outlay</strong></td>
<td>£ 725</td>
</tr>
</tbody>
</table>

**Annual Outlay for two years**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>One gardener or vine dresser</td>
<td>100</td>
</tr>
<tr>
<td>Four labourers at £30 each</td>
<td>240</td>
</tr>
<tr>
<td>Interest, 10% on all the above outlay</td>
<td>120</td>
</tr>
<tr>
<td><strong>Total Expenditure by third year:</strong></td>
<td>£ 1,185</td>
</tr>
</tbody>
</table>

(If trenched with spade, 30 inches deep, add £20 per acre.)

**Annual Expense in third year and after**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>One gardener or vine dresser</td>
<td>50</td>
</tr>
<tr>
<td>Four labourers, including coopering</td>
<td>170</td>
</tr>
<tr>
<td>Extra labour during vintage</td>
<td>50</td>
</tr>
<tr>
<td>Fifty wine pipes</td>
<td>75</td>
</tr>
<tr>
<td>Wear and tear of tools, apparatus, etc.</td>
<td>20</td>
</tr>
<tr>
<td>Interest on first two years outlay at 10%</td>
<td>118</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>£ 483</td>
</tr>
</tbody>
</table>

**Return**

Average 250 gallons per acre at 4s. per gallon, annually | £ 1,000
# Table V

**Estimate of Expenditure and Return on Ten Acres of Vines by Alexander Harris in 1849**

<table>
<thead>
<tr>
<th>Expenditure</th>
<th>Cost (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase at £2 per acre</td>
<td>20</td>
</tr>
<tr>
<td>Clearing and trenching, £25 per acre</td>
<td>250</td>
</tr>
<tr>
<td>Fencing 120 rods at 2/6 per rod</td>
<td>20</td>
</tr>
<tr>
<td>Vine cuttings, 20,000 at 2s per 1,000</td>
<td>20</td>
</tr>
<tr>
<td>Planting, 30s per acre</td>
<td>15</td>
</tr>
<tr>
<td>Stakes 7 feet long at 40s per 1,000</td>
<td>40</td>
</tr>
<tr>
<td>Pointing and fixing stakes</td>
<td>15</td>
</tr>
<tr>
<td>Horse, cart, plough, harrow etc.</td>
<td>50</td>
</tr>
<tr>
<td>Cellars and wine making buildings</td>
<td>80</td>
</tr>
<tr>
<td>Presses, vats, small still, cellar apparatus</td>
<td>80</td>
</tr>
<tr>
<td>House for vigneron and hut for 2 assistants</td>
<td>20</td>
</tr>
<tr>
<td>Carriage of supplies and materials</td>
<td>10</td>
</tr>
<tr>
<td><strong>Capital outlay</strong></td>
<td><strong>£ 620</strong></td>
</tr>
</tbody>
</table>

### Outlay during first two years

- Superintendence, £30 per annum: **£ 60**
- Two assistants at £35 each annually: **£ 140**
- Keep of horse: **£ 20**
- Carriage of supplies: **£ 5**
- Wear and tear of tools: **£ 20**
- Interest on current outlay at 4%: **£ 10**
- Interest on capital outlay at, say, 8%: **£ 100**

**Total** (£ 355)

### Annual expense after second year

- Current outlay per annum, as above: **£ 122.10.0**
- Interest, total: **£ 84.10.0**
- Additional labour at vintage: **£ 9.0.0**
- Casks and cooperage: **£ 30.0.0**

**Total annual expense** (£ 246.0.0)

### Return

- 3rd year 2,000 gallons at 2/6 per gallon: **£ 250**
- Annually, thereafter, 4,000 gallons: **£ 500**
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3. Ibid., p.78.
4. Sydney, 1830. It appears to be Busby's own handwriting.
9. Ibid., p.17. The book was almost certainly James Busby's *A Treatise on the culture of the vine, and the art of making wine*, Sydney, 1825.
11. Anon., *Some account of the vineyards at Camden*. London, 1849, p.3. The Mitchell Library copy must be a reprint or later edition since there are references to 1851 printed in the text.
12. Ibid.
13. Ibid., p.6.
17. The best biographical sketch is Ramsden, loc. cit..
19. Ibid.
20. Ibid., p.509.
22. 'Mr Busby's Publications', *The New South Wales Magazine*, vol.1, no.2, September 1833, p.94. A second article in December 1833 is signed 'Y'.
23. Ibid., pp.94-5.
25. 'Mr Busby's Publications', op. cit., p.97.
26. Ibid., p.96.
27. James Busby, *Journal of a tour through some of the vineyards of Spain and France*. Sydney, 1833. An English edition was
published in London in 1834 entitled, *Journal of a Recent Visit to the Vineyards of Spain and France.*

31. Ibid., 12 March, 1832.
32. Ibid., 21 June, 1832.
33. Ibid., 6 September, 1832.
40. John Dunmore Lang, *An Historical and statistical account of New South Wales*. 3rd edition. London, 1852, p.110. At this stage the vineyard was eight acres in extent.
44. Ibid., p.419.
46. The context suggests this is John Busby, James's brother.
52. James King, *Australia may be an extensive wine-producing country*, Edinburgh, 1857, p.5.
53. Ibid., p.6.
54. Diary of George Wyndham 1830-40, entry for 21 June, 1833.
55. Ibid., 1 April, 1833.
Figures were given in dollars in the 1825 Act, in sterling in subsequent Acts.

Maitland Mercury, 21 October, 1843.

Ibid., 30 September, 1843.

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Ibid., 15 November, 1845.

Ibid., 25 November, 1843.

Ibid., 27 March, 1844.

Ibid., 10 February 1844 and 24 February 1844, respectively.


'Silex' in Maitland Mercury, 10 February, 1844. But see Maitland Mercury, 18 May, 1844, where 'A Hunter River Wine Grower' argues that the 'only' qualifications needed are common sense and common intelligence. 'It will be', he says, 'a mark, or a long, of a want of intelligence, if not of actual imbecility, on the part of the resident proprietor, if he does not possess his plot of vineyard'.

Both are based on the French national average.

There is no actual record of the identities of 'Silex' and 'A Wine Grower'. The latter could be James King of Irrawang. In his letter of February 1844, he speaks of having been in the 'bush' nearly twelve years, during ten of which he had cultivated the vine, and of having made wine annually since 1836. It is known that King planted his first vines in September 1834 and made his first wine in 1836. Furthermore he was used to relatively high prices for his wines. For instance he claims to have sold most of his 1844 vintage 'in wood' at five shillings per gallon.

Athenaeum, 17 April, 1847, quoted in Maitland Mercury, 11 September, 1847.

Maitland Mercury, 6 November, 1847.

Ibid., 13 September, 1845.

Ibid., 27 March, 1847.

Ibid., 6 January, 1844.

Ibid., 10 April, 1846.

Ibid., 10 April, 1847.

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92. Ibid., p.9.
93. Ibid., p.12.
94. Maitland Mercury, 6 May, 1848.
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99. Ibid., 5 May, 1849.
100. Ibid., 10 November, 1849.
101. Ibid., 19 September, 1849.
102. Ibid., 10 July, 1850.
103. Ibid., 4 May, 1850.
104. Ibid., 14 October, 1854.
105. 'Indian Labour N.S.W. 1842', Mitchell Library A2029.
107. The correspondence in full, together with Governor FitzRoy's decision, is in FitzRoy to Grey, 20 April 1847, Historical Records of Australia, I/XXV, pp.493-512.
108. Ibid., p.494. The notice was issued on 7 April, 1847.
109. Ibid., p.510.
110. Maitland Mercury, 22 May, 1847.
111. Ibid., 8 September, 1847.
113. Maitland Mercury, 1 January, 1848.
114. Ibid., 14 April, 1849.
115. Ibid., 9 June, 1849.
116. Ibid., 10 November, 1849.
117. Ibid., 4 May, 1850.
118. Ibid., 11 May, 1853.
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